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UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

WASHINGTON, D.C.

cc- FCC
Berkeley
Hat Creek
2- State Div of Beaches + Parks
1- E. J. Pool, Custodian Burney Falls State Park
1- Div of Natural Res.
1- (Hall)

FOREST INSECT SURVEY REPORT OF THE McARTHUR-BURNEY FALLS STATE PARK

Approved by:

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By:

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INTRODUCTION

A survey of the 1943 and 1944 insect infestation on the McArthur-Burney Falls State Park was made on October 7, 1944. This survey was conducted by Ralph C. Hall and Clarence E. Startt, of the Bureau of Entomology and Plant Quarantine, Forest Insect Laboratory, Berkeley; and E. J. Pool, Park Custodian.

Extent and Type of Survey

This survey was made on a complete ground coverage of all the high use areas on the eastside of Burney Creek and on a 25 percent sampling basis on the westside of the Creek.

Description of the Area

The McArthur-Burney Falls State Park containing 320 acres is located in Shasta County in townships 36 and 37 north, range 3 east, about 11 miles north of the town of Burney. The timber type in this Park is practically pure mature ponderosa pine on the high use camping, picnic and administrative areas; and mixed fir and pine below the falls in the gorge area. Burney Falls in its forest setting represents one of the outstanding scenic attractions in the west.

Character of Past Insect Losses in the Park

Past insect losses in the Park have been moderate, usually occurring as single trees and have not seriously marred the beaty of the Park.

Infestation Condition in 1943

The present survey showed only 6 ponderosa pine trees killed during the season of 1943. This represented a low endemic condition. However, the picture for 1944 shows a very drastic change.

Infestation Condition in 1944

A very serious epidemic of the western pine beetle (Dendroctonus brevicomis Lec.) and Ips confusus Lec. now occurs in the Park. Bark beetles of the 1944 generation already have killed 73 trees this season; of this number, 53 trees still contain active brood stages with 20 in which the brood have abandoned. On the basis of past experience, it can reasonably be expected that by winter there will be at least 75 trees in the area which will contain broods of the western pine beetle and Ips.

Characteristics of the 1944 Epidemic

The 1944 epidemic is characterized by numerous large and small groups of trees. Many of these are first top-killed by Ips and later filled in in the base by the western pine beetle. The epidemic condition in the Park appears to be definitely associated with and influenced by the serious recent outbreak in the Clark Creek area a few miles to the north.

Recommendations for Control

Because of the epidemic nature of the present infestation in the Park and because of the serious threat to the remaining timber in the Park, it is recommended that control measures be taken in the Park during the early winter of 1944. As the majority of the infested trees are small and unmerchantable, it will be necessary to use the direct control method of cutting the trees, peeling and burning the infested bark.

Cooperation on Control Measures

If control measures are undertaken in the Park area, the Forest Insect Laboratory at Berkeley through the local field laboratory at Hat Creek is prepared to furnish assistance in spotting of infested trees and advice in conducting control measures.